

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF OHIO
EASTERN DIVISION

KENDALL HOLDINGS, LTD., d/b/a
PHPK TECHNOLOGIES

Plaintiff,

v.

EDEN CRYOGENICS LLC, et al,
Defendants.

Case No. 2:08-cv-390

JUDGE EDMUND A. SARGUS, JR.

Magistrate Judge Terence P. Kemp

OPINION AND ORDER

This matter is before the Court for consideration of two motions in *limine*: Defendants' Motion to Exclude the Expert Testimony of Kenneth Kreinbrink, doc. 133, and Defendants' Motion to Exclude the Expert Testimony of Robert Sturges, doc. 135. For the reasons below, the Court **DENIES** Defendants' motion as to Mr. Kreinbrink, and **GRANTS in part** and **DENIES in part** their motion as to Mr. Sturges.

I. BACKGROUND

The Court has previously recited the facts of this case at length. *See Kendall Holdings, Ltd. v. Eden Cryogenics LLC*, 846 F. Supp. 2d 805, 810–12 (S.D. Ohio 2012). For the purposes of the motions *sub judice* the following suffices. Plaintiff Kendall Holdings, Ltd., d/b/a PHPK Technologies ("Plaintiff" or "PHPK") brought this suit against Defendants Eden Cryogenics LLC and several of its employees (collectively "Defendants" or "Eden"). Both companies deal in the cryogenics industry. Cryogenics companies manufacture and supply items such as valves, bayonets,¹ and vacuum-insulated piping. The industry refers to the valves and bayonets as "standard products." *See* doc. 133-3 at 211. In order to construct these product lines, companies in the industry utilize professionally drafted design and engineering drawings, known as "shop

¹ A "bayonet," in the cryogenics industry, is a device used to connect two sections of vacuum-insulated piping.

drawings.” PHPK’s remaining claim is one for misappropriation of trade secrets—it maintains that Eden misappropriated its trade secrets by impermissibly retaining shop drawings for lines of its standard products.

PHPK lists Mr. Kreinbrink and Mr. Sturges as experts to be called as witnesses at trial. Doc. 194 at 1–2. It offers the testimony of Mr. Kreinbrink regarding the costs associated with developing cryogenic valves and bayonets. Doc. 144 at 1. It offers Robert Sturges to testify regarding, among other things, whether he thinks Eden copied the shop drawings at issue, and the amount of Eden’s alleged unjust enrichment in the event that it did copy the drawings. Doc. 143 at 3–4. Eden challenges these experts according to the standards laid out in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993).

II. STANDARD

Federal Rule of Evidence 702 requires the trial judge to perform a “gatekeeping role” when considering the admissibility of expert testimony. *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 597 (1993); *see Pluck v. BP Oil Pipeline Co.*, 640 F.3d 671, 677 (6th Cir. 2011). In accordance with Rule 702, this Circuit has held that the gate-keeping role progresses in three steps.

First, the witness must be qualified according to his or her “knowledge, skill, experience, training, or education.” *In re Scrap Metal Antitrust Litig.*, 527 F.3d 517, 529 (6th Cir. 2008) (quoting Fed. R. Evid. 702). Second, the expert’s testimony must be relevant, in that it will help “the trier of fact to understand the evidence or to determine a fact in issue.” *Id.* (same). On this point, the Court’s inquiry focuses on whether the expert’s reasoning or methodology can be properly applied to the facts at issue. *See Daubert*, 509 U.S. at 591–93. Third, the testimony must be reliable, *see In re Scrap Metal Antitrust Litig.*, 527 F.3d at 529, which the proponent has

the burden of proving by a preponderance of the evidence, *Wellman v. Norfolk & Western Railway Co.*, 98 F. Supp. 2d 919, 923 (S.D. Ohio 2000). Reliability depends on a set of factors laid out in more detail in the analysis below.

Finally, this Court's "gatekeeper role . . . is not intended to supplant the adversary system or the role of the jury." *Wellman*, 98 F. Supp.2d at 924 (citing *Daubert*, 509 U.S. at 596). Instead, it is "to keep unreliable and irrelevant information from the jury because of its inability to assist in factual determinations, its potential to create confusion, and its lack of probative value." *Id.* Accordingly, "vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence." *Id.*

III. DISCUSSION

Defendants challenge Mr. Kreinbrink's testimony on the grounds that he is not qualified to offer expert testimony on the process and costs of developing standard products, and that his opinions are the products of unreliable methodologies. *See* doc. 133 at 1. Defendants also argue that Mr. Sturges's testimony comes from unreliable methodology. *See* doc. 135 at 4–16.

A. Mr. Kreinbrink's Qualifications

1. Background

Mr. Kreinbrink graduated with a degree in agricultural engineering from Ohio State in 1973. Doc. 130-1 at 31. He has been licensed as a professional engineer since 1979. *Id.* at 36. He has coursework in drafting from his time as an undergraduate, *id.* at 43; and experience with drafting technical drawings of crane parts from a job prior to his work in the cryogenics industry, *id.* at 43. From 1975 to 1984, Mr. Kreinbrink worked as an engineer for CVI Incorporated. *Id.* at 45. At CVI, he worked as a project engineer supervising and managing projects in two

divisions, including “14 or 15” years in the cryogenics arena. *Id.* During that time, Mr. Kreinbrink gained general experience with standard products in that he “requested them for use in [CVI’s] systems,” *id.* at 47, though he did not design or draw any standard products, *id.* at 48. From 1995 to 1998, he worked as an engineer at a company called PDM. *Id.* at 55. There he gained further experience in the cryogenics industry on some of PDM’s contracted projects, and in “the PDM offices pricing a large project they did for Hughes Aerospace.” *Id.* Mr. Kreinbrink also purchased standard products for projects he worked on while at PDM. *Id.* at 56.

He then moved to PHPK in 1998. *Id.* at 51. He serves as “vice-president of engineered products and systems, which means that [he is] in charge of procuring and building systems that are basically one-of-a-kind systems that are uniquely specified by a customer.” *Id.* at 63. At the time of his deposition, he had worked with PHPK’s standard products group “five or six times.” *Id.* at 65. Specifically, he “designed some of [his] own modifications to their existing equipment to use on systems jobs.” *Id.* at 64. Part of this process involved working with draftsmen who would design and draw modifications to the standard products. *Id.* at 65. He has also redesigned a valve plug that was not performing well. *Id.* at 103; *see also* 323–24.

The other part of Mr. Kreinbrink’s role at PHPK entails preparing proposals for jobs related to cryogenic products and systems. PHPK then uses his proposals to bid on these jobs.

Doc. 144-3 ¶ 2. In his affidavit, Mr. Kreinbrink described how he prepares the proposals:

When preparing Proposals, I am responsible for accurately determining the labor and material costs that will be needed to design and develop the product or system, including the number and types of employees that will be needed for the job, the number of hours each employee will need to expend on the job, the cost of labor for the job (i.e. number of hours for each employee multiplied by the employee’s hourly rate), the types of materials that will be needed for the job, and the cost of the materials needed for the job.

Id. ¶ 3. Mr. Kreinbrink also avers that he has twenty-nine years of experience preparing cryogenics products and systems price proposals, *id.* ¶ 4; and that he has prepared estimates for over 240 proposals, of which 215 have been during his employment for PHPK, *id.* He stated that he based his report, and the process of estimating the cost of the product lines at issue, on his years of experience in the industry. *See* doc. 130-2 at 296–98.

Mr. Kreinbrink is not responsible for pricing PHPK’s standard products. *Id.* at 106. He stated in his deposition that he did “not know exactly” how the company determined the price of a single standard product piece, but did know generally that “they base it on the actual cost of product.” *Id.* He confirmed that has personally never developed a valve or a bayonet. *See id.* at 48; doc 130-2 at 264–66. He also confirmed that he has never undertaken the process spelled out in his report to determine the cost of a bayonet or a valve. *See* doc. 130-2 at 264–66.

2. Analysis

The inquiry of whether a witness qualifies as an expert depends on her “knowledge, skill, experience, training, or education.” Fed. R. Evid. 702. After review of the expert’s qualifications, the district court makes this determination as a preliminary fact. *Kingsley Associates, Inc. v. Del–Met, Inc.*, 918 F.2d 1277, 1286 (6th Cir. 1990). In doing so, the district court “has broad discretion in the matter of the admission or exclusion of expert evidence.” *United States v. Kalymon*, 541 F.3d 624, 636 (6th Cir. 2008) (quoting *United States v. Demjanjuk*, 367 F.3d 623, 633 (6th Cir. 2004)). As a guiding principle, the decision of whether to allow expert testimony depends on whether “it will assist the trier of fact.” *Id.*

The dispute over Mr. Kreinbrink requires the Court to drill down further beyond these general guiding principles: “The issue with regard to expert testimony is not the qualifications of a witness in the abstract, but whether those qualifications provide a foundation for a witness to

answer a specific question.” *Berry v. City of Detroit*, 25 F.3d 1342, 1351 (6th Cir. 1994). In this case, the parties contest whether Defendants misappropriated trade secrets and, if so, the value of that misappropriation. Plaintiff offers Mr. Kreinbrink to weigh in as an expert on the value of that misappropriation. The relevant question is thus: does he have the kind of knowledge, skill, experience, training, or education that will assist the trier of fact regarding the costs associated with developing cryogenic valves and bayonets?

The Court answers this question in the affirmative and finds that Mr. Kreinbrink’s professional qualifications qualify him as an expert to testify regarding the costs associated with developing cryogenic valves and bayonets. Estimating the costs associated with designing and developing these products requires some degree of technical background and education. Mr. Kreinbrink has a degree in engineering and has been a licensed engineer for over thirty years. He has also worked as an engineer and as a vice president on the technical side in the cryogenics industry for over thirty years. Estimating the costs at issue also requires a relative degree of skill, knowledge, and experience with standard products. Mr. Kreinbrink has design experience in the cryogenics industry; he has done pricing for projects that incorporated standard products; he has purchased standard products; he has designed modifications to standard products; and he has worked closely with the engineers and draftsmen who design and draw modifications to standard products. Part of his job for PHPK includes preparing proposals for cryogenics products. These proposals include estimates of labor and material costs, and he has done over 200 of them. The Court finds that this clears the initial, liberal requirement for an expert’s qualifications. *See Pride v. BIC Corp.*, 218 F.3d 566, 577 (6th Cir. 2000).

Defendants make several contentions against Mr. Kreinbrink’s qualifications as an expert, all of which fail to convince. They argue that Mr. Kreinbrink has not personally

developed bayonets and valves at issue in this case, nor has actually drafted drawings of either. But, given his years of experience, his technical background, his experience working with employees who draft drawings of the products, and the number of project proposals he has done, Mr. Kreinbrink is clearly familiar with the products and cost-development of the products at issue. To the extent he lacks familiarity with actually developing or drafting pictures of these products, these issues “merely affect[] weight and credibility of his testimony, not its admissibility.” *Barreto*, 268 F.3d at 333. The same applies to Defendants’ contention that he first applied his method of cost estimation to this case, and that he had never actually estimated the cost of standard product lines before. Witnesses can have generalized knowledge of a field, which allows them to opine on a more specified subset of that field—even if they lack experience in that subset. *See Surles ex rel. Johnson v. Greyhound Lines, Inc.*, 474 F.3d 288, 294 (6th Cir. 2007). Again, this goes to weight and credibility, not to whether Mr. Kreinbrink has the qualifications to offer an opinion as an expert in this case.

B. Reliability of Methodology

Defendants contest the reliability of each of the experts’ methodology in forming their opinions. Reliability depends on whether the reasoning or methodology underlying the testimony relies on valid scientific principles rather than unsupported speculation or subjective belief. *See Daubert*, 509 U.S. at 590. A number of factors guide this inquiry, several of which come from Rule 702: whether “the testimony is based on sufficient facts or data”; whether “the testimony is the product of reliable principles and methods”; and whether “the expert has reliably applied the principles and methods to the facts of the case.” Fed. R. Evid. 702(b)–(d).

Daubert also “sets forth a nonexclusive list of factors” to assist trial courts in evaluating the reliability of expert testimony. *Siegel v. Dynamic Cooking Sys., Inc.*, 501 F. App’x 397, 403

(6th Cir. 2012). They include: “(1) whether the theory or technique can be or has been tested; (2) whether it ‘has been subjected to peer review and publication’; (3) whether there is a ‘known or potential rate of error’; and (4) whether the theory or technique enjoys general acceptance in the relevant scientific community.” *Pluck*, 640 F.3d at 677 (quoting *Daubert*, 509 U.S. at 593–94). The Sixth Circuit has recognized an additional factor, “whether the proposed testimony grows of independent research or if the opinions were developed expressly for the purposes of testifying.” *Siegel*, 501 F. App’x at 403 (internal quotation marks omitted).

The test of reliability is a flexible one. *Kuhmo Tire Co. v. Carmichael*, 526 U.S. 137, 157 (1999) (quoting *Daubert*, 509 U.S. at 594). To this end, the factors do not constitute a “definitive checklist or test,” but must be tailored to the facts of the particular case. *Id.* at 150 (quoting *Daubert*, 509 U.S. at 593). The Court, in other words, has “considerable leeway in deciding in a particular case how to go about determining whether particular expert testimony is reliable.” *Id.* at 152. A particular need for flexibility exists when applied to non-scientific testimony. *See Barreto*, 268 F.3d at 334.

1. Mr. Kreinbrink

Mr. Kreinbrink prepared two reports to support his opinions regarding the cost of developing the standard products. One contains his assessment of the necessary steps and costs associated with developing a line of cryogenic bayonets, also known as couplings. *See doc. 133-1*. The other contains the same information, only applied to a line of cryogenic valves. *See doc. 133-2*. Both reports break into two three sections:

- (1) Development: A step-by-step breakdown of pre-manufacturing development, such as determining design configurations and sizes of the respective lines; an explanation of the process of creating a set of drawings for each product; the steps to manufacturing that product line; the steps for a post-manufacturing inventory.

- (2) Cost of development: An explanation of how Mr. Kreinbrink applied costs for time and materials to his step-by-step development process to reach an overall cost of development for each line.
- (3) Tables: An appendix with a series of tables showing Mr. Kreinbrink's calculation of the hours and prices attached to each step of the process.

Based on the arguments, the briefing, and the law on point, the Court finds Mr. Kreinbrink's methodology reliable enough to testify as an expert on the process and costs associated with developing the standard products at issue in this case. Several reasons lead to this conclusion. First, the Court finds that the *Daubert* factors "unhelpful" in this case. *Barreto*, 268 F.3d at 334. Instead, Mr. Kreinbrink's reports "derive[] largely from [his] own practical experiences." *Id.* Accordingly, the reliability in this case depends on Mr. Kreinbrink's experience and how he applied it to his reports.

Second, Mr. Kreinbrink has met the reliability standard for experts basing their opinions on experience. This standard requires the witness to explain "how that experience leads to the conclusion reached, why that experience is a sufficient basis for the opinion, and how that experience is reliably applied to the facts." Fed. R. Evid. 702 advisory committee's note. Mr. Kreinbrink has done just that. He cites several sources for the methodology behind his reports. He explains that he based his step-by-step development process for each line of products on: his experience of preparing cost estimates and job bids for cryogenics jobs, *see* doc. 130-2 at 279; his knowledge of how other companies prepare their bids, *see id.*; his knowledge and experience of how products are built and designed, *see id.* at 284–86; and on the process he follows when applied to different lines of products, *see id.* at 288–89. He based his estimation of how long it would take to draft the products on conversations with Joe McAllister, a PHPK employee who supervises engineers in their drawing. *See id.* at 229–30, 246–49, 348–50, 358, 361. Mr. Kreinbrink based his product-line cost estimates on conversations with Greg Shuer, who sold

valves for PHPK, *see* doc. 130-2 at 230, 255; on classes he took for how to price other kinds of cryogenics products, *see id.* at 268; on his current experience with PHPK bids, *see id.* at 275–76, 287–88, 298, including the 215 bids he avers to having prepared while at PHPK, doc. 144-3 ¶ 3; and on PHPK’s past purchase orders for some of the products at issue in this case, *see, e.g.*, doc. 130-2 at 240–42, 255, 380. Mr. Kreinbrink also based the form of his cost tables on a general spreadsheet that he uses for other PHPK cryogenic-product bids. *See id.* at 363.

Eden puts forth three lines of argument to attack the reliability of Mr. Kreinbrink’s methodology. They all fail to undermine reliability. As one, it argues that Mr. Kreinbrink’s development and cost-determination methods have not been peer reviewed or published. The Court, however, as already found the factors unhelpful in this case given that Mr. Kreinbrink bases his opinion on experience. Further, *Daubert* held that neither publication nor peer review stands as the “*sine qua non* of admissibility.” 509 U.S. at 593. This Circuit agrees. *See, e.g., Barreto*, 268 F.3d at 334 (“The fact that [an expert’s] opinions may not have been subjected to the crucible of peer review, or that their validity has not been confirmed through empirical analysis, does not render them unreliable and inadmissible.”).

Eden next argues that Mr. Kreinbrink’s efforts are not generally accepted in the cryogenics community. This factor does not apply here, nor is it required for reliability. *See Daubert*, 509 U.S. at 588. Further, the cryogenics community has very few participants and, as Plaintiff’s briefing points out, members of that community do not have an incentive to share methodology.

Also as part of this argument, Eden assert that Mr. Kreinbrink included items—and thus added additional costs—in his report that other cryogenics companies do not use for product development. PHPK and Mr. Kreinbrink, however, appear to answer each of Eden’s concerns.

Eden asserts that he unnecessarily included a bayonet test apparatus; Mr. Kreinbrink's deposition indicates that other companies in the industry use them, *see* doc. 130-2 at 435–36. Eden asserts Mr. Kreinbrink unnecessarily included a valve test skid; he indicated in his deposition, however, that at least one other cryogenics company uses or has used a valve skid for product development, *see id.* at 307–08. Eden finally asserts that Mr. Kreinbrink unnecessarily included the cost of building prototype bayonets. Mr. Kreinbrink did say he was not aware of another company in the industry that did. However, he also indicated that PHPK has done a first-run manufacture of a valve while he was there, but did not call it a prototype because a customer paid for it. *See id.* at 407–10. Although the record does not demonstrate as much, any part of Mr. Kreinbrink's report not indicative of the normal industry process does not render his methodology unreliable. Rather, it means that some of his methodology might rise to the level of "shaky," meaning it should be subject to "vigorous cross-examination [and] presentation of contrary evidence." *Wellman*, 98 F. Supp.2d at 924 (citing *Daubert*, 509 U.S. at 596).

Eden's third argument asserts that Mr. Kreinbrink's methods were created solely for litigation, and that they are thus inherently unreliable. To be sure, this Circuit has "been suspicious of methodologies created for the purpose of litigation." *Mike's Train House, Inc. v. Lionel, L.L.C.*, 472 F.3d 398, 408 (6th Cir. 2006). But as the Court has explained, Mr. Kreinbrink based his method of cost estimation on his experience in the industry, on the same form he uses for other cryogenic-product cost estimates, and on his experience in preparing estimates for more than 200 other cryogenics projects. In other words, his method "flow[ed] naturally" from his line of "technical work," *Johnson v. Manitowoc Boom Trucks, Inc.*, 484 F.3d 426, 434 (6th Cir. 2007), which distinguishes the instant facts from those of the cases Eden cites for support. *See id.* at 435 (party offering the "quintessential expert for hire" did not show

objective proof of expert's "extensive familiarity" with the subject matter); *Mike's Train House*, 472 F.3d at 406 (expert created twenty-one self-selected criteria to help him in comparing drawings to determine whether they were copied); *Nelson v. Tennessee Gas Pipeline Co.*, 243 F.3d 244, 252 (6th Cir. 2001) ("the fact that the study was performed in connection with litigation and funded by plaintiffs' counsel" was a final factor against the expert testifying).

2. Mr. Sturges

Plaintiff advances Mr. Sturges as an expert in the field of mechanical engineering. Mr. Sturges graduated from M.I.T. with an undergraduate degree and Master's degree in mechanical engineering. Doc. 117-3 at 15. He earned a doctorate in mechanical engineering from Carnegie Mellon University. *Id.* He worked as an engineer in the field from 1969 until 1984, and has primarily worked in academia and as a consultant since then. *See id.* As of January of 2011, he had authored or co-authored over ninety papers in the field of mechanical engineering. *See id.* at 23–34. From 2001 until the present has worked as an engineering professor at Virginia Tech. *Id.* at 15. He has also worked as an assistant and associate professor at Carnegie Mellon. *Id.*

The parties disagree about several aspects of Mr. Sturges's possible testimony. They first disagree about what opinions he offers. Mr. Sturges prepared a report and a supplemental report that summarized his conclusions and explained his methodology. From these, Eden understood him to offer two general opinions—one as to whether Eden independently created the drawings at issue in this case, and another as to how much money Eden would have saved if not. *See doc. 135* at 3–4. PHPK countered that Mr. Sturges will offer opinions that

- (1) Eden copied PHPK's shop drawings to create Eden's old shop drawings;
- (2) Eden was unjustly enriched in the amount of \$511,968 by copying PHPK's shop drawings to create its old shop drawing[s];
- (3) Eden copied PHPK's shop drawings to create Eden's new shop drawings for its 3" manual valve;
- (4) Eden copied PHPK shop drawings to create other specific new Eden shop drawings;
- (5) Eden has not produced evidence establishing that Eden

independently created or reverse engineered products to create its new shop drawings; (6) Eden has failed to produce all of the PHPK drawings that it copied; (7) Eden copied PHPK's shop drawings to create all of its new shop drawings; and (8) Eden was unjustly enriched in the amount of \$32,012 per product by using PHPK's shop drawings to create its new shop drawings for its products.

Doc. 143 at 3–4. Defendants responded that they “do not contest *the admissibility* of the opinions set forth in (1), (3) and (4).” Doc. 154 at 15 (emphasis in original). Mr. Sturges's opinions set forth in (2), (5), (6), (7), and (8) thus remain at issue.

a. (2) Eden was unjustly enriched in the amount of \$511,968 by copying PHPK's shop drawings to create its old shop drawings; (8) Eden was unjustly enriched in the amount of \$32,012 per product by using PHPK's shop drawings to create its new shop drawings for its products.

Mr. Sturges examined several sets of shop drawings for his expert reports. Two are at issue for the purpose of this section. One pertains to a set of 297 shop drawings Eden produced during discovery that “may have been” based off of PHPK shop drawings. Doc 111-2 at 9. Eden claims that the company created these drawings before litigation began in this case (the “old shop drawings”). *See* doc. 135 at 4. The other consisted of thirty-seven drawings of Eden's 3” pipe valve line that Eden claims were created since litigation began (the “new shop drawings”). *See id.* PHPK does not disagree with Eden's classification of the drawings. In his report, Mr. Sturges took several steps to calculate the amount of money Eden gained by allegedly copying the old and new shop drawings.

Mr. Sturges started with the old shop drawings. As his first step in calculating the damages, Mr. Sturges examined the drawings and concluded that Eden “egregiously enriched itself by inappropriately taking PHPK's intellectual property without even any attribution.” Doc. 117-6 ¶ 14. As his second step, Mr. Sturges put a dollar to the amount of money Eden gained by allegedly copying the 297 shop drawings. To do so, he broke down the 297 drawings into

drawing three parts: “missing ‘bought outside’ specifications, partial product line parts, and creation of ‘final assembly drawings’ for a product.” *Id.* He then assigned a time value to how long it would take Eden to copy each part of a drawing. He next determined a composite hourly wage to represent the time that a skilled drafter and skilled engineer would have spent on a project like this. Mr. Sturges then multiplied this wage by the time values he assigned to copying each part, thus reaching a figure for how much it might cost Eden to copy the drawings at issue. He refers to this as the “copied value” of a set of drawings. *See, e.g., id.* ¶ 32.

Third, he applied his methods from step two to creating each feature of each drawing from scratch. To do so, Mr. Sturges had to estimate how long it would take to create each part of the drawing from whole cloth. He based these time estimations on his experience in the field, and the time estimations he arrived at varied depending on the part of the drawing. He estimated that “features” and “notes” would take four times as long to create than to copy, *id.* ¶¶ 22–23, and that “tolerances” would take one hundred times longer to create than copy, *see id.* ¶ 23. He then multiplied these new time figures by his composite hourly figure to reach a value of the drawings if created independently. *See, e.g., id.* ¶ 32. Finally, Mr. Sturges subtracted the copied value from the independent-creation value to reach an estimate of how much Eden saved by allegedly copying the 297 drawings: \$511,968. *Id.* at ¶ 32.

Mr. Sturges also examined Eden’s 3” manual valve product and concluded that “there is evidence that the entire set had been copied.” *Id.* ¶ 68. Using the same methodology laid out above, he calculated that Eden gained \$32,012 by copying this product line. *Id.* He extended this finding to other product lines, opining that “this figure for independent creation would be comparable for each of Eden’s other products, if Eden had chosen to create other products independently that are depicted in [the company’s] catalog, i.e., other valves or bayonets.” *Id.*

Eden attacks several aspects of this methodology. It argues that his breakdown of the drawings into parts—to which he the assigns time estimates—was arbitrary. It argues that the time values he assigned to perform each part of the drawing were also arbitrary. It also argues that the per-hour dollar value he assigned to these time values was speculative because it was based only on information from PHPK. Eden further contends that Mr. Sturges's copied-to-scratch time multipliers were arbitrary. The company also argues that Mr. Sturges double counted the time values by applying them uniformly to all of the drawings, even some that were almost identical; and that the usual practice in the industry would be to estimate the cost of a drawing based on its size, not on the method he used for this case. *See* doc. 130-3 at 73. Finally, the company asserts that all of his methodology in this case was created for the purpose of litigation.

To resolve this dispute, the Court first addresses the parties' dispute over what factors should take the lead in this case—the conventional *Daubert* factors or whether Mr. Sturges's experience provides an adequate basis for his opinions and methodology. Mr. Sturges's curriculum vitae demonstrates the depth of his experience in the field of engineering generally and mechanical engineering specifically. He has worked as an engineer, lead engineer, and senior engineer; he has worked as a consultant or expert witness with over forty companies; he has advised students in well over fifty independent studies; authored or co-authored more than ninety papers in the field of engineering; developed an extensive amount of coursework for classes; and has worked in the field of mechanical engineering for over forty years. *See* doc. 117-3 at 15–49. With this experience, PHPK offers Mr. Sturges to estimate how long it would take to copy the drawings at issue, and how long it would have taken them to do so from scratch. It does not ask him to present a cutting-edge theory, or to base his opinion in this case from, for

example, an academic study. Rather, it asks him to apply his extensive experience in the field to the relevant questions at issue in this case. Thus, the issue: does he adequately explain how his experience “leads to the conclusion reached, why that experience is a sufficient basis for the opinion, and how that experience is reliably applied to the facts”? Fed. R. Evid. 702 advisory committee’s note.

The Court finds that the answer to this question is yes. Mr. Sturges testified in his deposition that he has used computer software to design mechanical engineering products. Doc. 13-3 at 77–79. He testified in his deposition that he has designed products similar to those at issue in this case. *Id.* at 79. He further testified how he applied his experience to this case and based his time estimates on the following: (1) he has done “thousands of drawings” in his career, *id.* at 207; (2) he has “done drawings of other systems of higher complexity and of lower complexity than the instant valves,” which gave him a good range for estimation in this case, *id.* at 208; (3) on his forty years of experience in machine design and “having done drawings and been an estimator” for his own work, *id.* at 205; and (4) he has worked in the field of “human factors,” which helped him estimate the time it would take for someone to draw the parts at issue, *id.* at 197. The record also indicates where Mr. Sturges provided several other examples of how his experience factored into his estimates. *See, e.g., id.* at 213–14; *id.* at 216.

The answer to the relevant 702 question is also yes when applied to his copied-or-from-scratch time multipliers. Mr. Sturges clearly spoke to how his experience led to his conclusions regarding how much longer it would take to construct the drawings from scratch. For example:

(1) Why it would take four times longer to create an engineering feature from scratch: “I get that from having done drawings and been an estimator for my own work and having observed assistants who are helping me with drawings. This Number 4 times is—I don’t take lightly at all, and it is dependent on my understanding of the complexity of the individual parts of which I now have intimate knowledge.” *Id.* at 205.

(2) Why it would take 100 times as longer to determine each tolerance from scratch: He based the 100 multiplier on his knowledge of statistics, and that, in his experience, a company “would have to make measurements on 100 parts to have a statistical significance for that tolerance,” *id.* at 252; he also knew this multiplier to be an industry practice based on several companies he had worked with, *see id.* at 253–54; and he observed these companies deconstruct a product 100 times in the context of reverse engineering, *id.*; *see also id.* at 226–35.

Mr. Sturges’s opinion as to damages is admissible based on the strength of his experience and his explanation of how this experience led to his conclusions. His explanation also rebuts Eden’s chief criticism of his approach—that he based his estimates on pure speculation. The nature of what Mr. Sturges did in estimating the damages required him to make estimates. But these estimates, as his testimony and the explanation here have shown, came from his extensive relevant experience and not from whole cloth. In other words, his explanation goes beyond *ipse dixit* logic and speculation.

Eden’s contentions against admissibility fail to outweigh the strength of Mr. Sturges’s experience when it comes to reliability. The first pertains to his reliance on wage rates provided by PHPK. Eden argues that he did not verify these rates independently, and that based the rate of a “skilled engineer” on the salary of Eden’s President, Steven Hensley. To be sure, as Eden points out, some case law in this Circuit cautions against the admissibility of an opinion based on biased or unverified evidence. *See, e.g., United States v. Tipton*, 269 F. App’x 551, 559–60 (6th Cir. 2008); *Dallas & Mavis Forwarding Co., Inc. v. Stegall*, 659 F.2d 721, 722 (6th Cir. 1981). But this case law does not apply. Mr. Sturges did verify that the information provided to him was “consistent with the salaries of the persons representative of this matter.” Doc. 117-6 ¶ 93. He noted that Mr. Hensley’s initials were on the drawings he examined and that Mr. Hensley is an engineer, both of which support his usage of Mr. Hensley’s salary. Doc. 130-3 at 221. He also based the draftsman salary on his own general knowledge of the field. *Id.* at 134. Eden has

not asserted that the information Mr. Sturges used was necessarily inaccurate, nor do they assert that evidence Mr. Sturges relied upon is inadmissible. This supports the inclusion of Mr. Sturges's testimony, *see Greenwell v. Boatwright*, 184 F.3d 492, 497 (6th Cir. 1999); and that, to the extent Eden wants to challenge or discredit the figures, it can do so on cross-examination at trial, *Mactec, Inc. v. Bechtel Jacobs Co., LLC*, 346 F. App'x 59, 78 (6th Cir. 2009).

Eden also claims that he double counted time to draw certain engineering features present throughout many of the drawings. In other words, Eden claims that Mr. Sturges likely could have used different data to reach the conclusion he reached. Mr. Sturges spoke to this in his deposition; he stated his confidence that he did not double count, noted some differences between the drawings Eden's counsel pointed to him looked very similar, and explained that he had doubts as to whether they were so similar given that they were created two years apart. *See id.* at 269–80. Even so, these attacks on his “analysis are of a character that impugn the accuracy of his results, not the general scientific validity of his methods.” *In re Scrap Metal Antitrust Litig.*, 527 F.3d at 530.

Eden puts forth two additional, related arguments that go toward the novelty of Mr. Sturges's methods: he created them for litigation, and they differ from industry practice. While true, neither point carries much weight. The Court recognizes that “expert testimony prepared solely for purposes of litigation . . . should be viewed with some caution.” *Johnson v. Manitowoc Boom Trucks, Inc.*, 484 F.3d 426, 434 (6th Cir.2007). However, the Court is not required to exclude automatically a “prepared-solely-for-litigation” methodology as unreliable. *Id.* Instead, it may consider this as one factor, *id.*, and here this factor does not outweigh Mr. Sturges's experience. And although Mr. Sturges's methodology differs from the industry standard, Mr. Sturges did not attempt a standard cost-estimation for one project—he sought to

identify how much money Eden saved by allegedly copying the drawings at issue. He thus could not use standard industry practice for cost estimation.

In short, based on the relevant factors, the Court finds Mr. Sturges's methods of damages estimation reliable enough for trial. Any attacks on how he arrived at his conclusions should thus occur at trial.

b. (5) Eden has not produced evidence establishing that Eden independently created or reverse engineered products to create its new shop drawings.

Mr. Sturges's testimony for this opinion consists of his conclusion that the drawings were not the product of reverse engineering, *see* doc. 117-6 at ¶¶ 28, 95; doc. 130-3 at 229, and, more substantively, the following exchange from his deposition:

Q What would you expect to find if there was reverse engineering?

A I would expect to find a statistical analysis of tolerances; I would expect to find evidence that there were sufficient measurement tools and techniques that were available to the drafters at Eden to perform such as analyses.

Q Anything else?

A No.

Q Well, are you aware, as counsel advised you, that Eden in fact produced some documents in which Eden at least represented that these reflected the reverse engineering of product?

A I am aware of that.

Q And you say that those documents do not reflect that Eden used reverse engineering?

A Yes, correct.

Q So if Eden said that that was—what these documents did and was representing that that is the truth, you would say that Eden was not being honest and truthful?

A No, I would—alternatively, I would suggest that they don't know what reverse engineering is.

Doc. 130-3 at 248.

Although this serves as thin support for his opinions in the area of reverse engineering, the Court is not prepared to exclude Mr. Sturges's testimony in this area. Mr. Sturges's qualifications clearly support that he is an expert in the field of mechanical engineering. Eden does not contest as much. Accordingly, he is entitled to give a range of opinion testimony in the area. His testimony with regard to reverse engineering indicates that he both understands it and has experience with it. *See id.*; *id.* at 249–57. Because of this, because neither party requested a *Daubert* hearing, and because of his status as an expert in the field of mechanical engineering, the Court preliminarily finds that Mr. Sturges can offer an opinion as to whether the drawings he examined show evidence of independent creation or creation by reverse engineering. This ruling is subject to further re-evaluation at trial if Mr. Sturges cannot explain how his “experience leads to the conclusion reached, why that experience is a sufficient basis for the opinion, and how that experience is reliably applied to the facts.” Fed. R. Evid. 702 advisory committee's note.

c. (6) Eden has failed to produce all of the PHPK drawings that it copied.

The Court finds that neither Mr. Sturges nor Eden has put forth any foundation or support for this opinion. Thus, it qualifies as a subjective belief and speculation without any support. The knowledge and reliability factors of *Daubert* require more. *See Tamraz v. Lincoln Elec. Co.*, 620 F.3d 665, 670 (6th Cir. 2010) (quoting *Daubert*, 509 U.S. at 590).

d. (7) Eden copied PHPK's shop drawings to create all of its new shop drawings.

The Court finds that the reliability factors counsel against admitting Mr. Sturges's opinion on this point. First, Mr. Sturges's opinion falls outside of his expertise. He came to his

conclusion with the following methodology: (1) he examined thirty-seven new shop drawings, doc. 130-3 at 184; (2) he also looked at nearly 300 old shop drawings from an earlier set of drawings Eden produced, *id.* at 188; (3) he concluded that the new and old drawings contained the “same kinds of identical features,” *id.*; doc. 117-6 ¶ 126; (4) he extended this assertion, and concluded that all 851 of Eden’s new shop drawings were copied. He further explained his conclusion as follows: “[I]f one product is more than 97 percent—95 percent copied and is not substantially different except in scale, and one learns that from the catalog, then I suspect and it is my opinion that all of the others were copied as well.” Doc. 130-3 at 187–88. In short, Mr. Sturges bases his opinion here on statistics. But Kendall Holdings does not offer Mr. Sturges as an expert in statistics, nor does Mr. Sturges hold himself out as one. Thus, to the extent he extrapolates his findings and puts forth arguments in support of the statistical significance of his findings, he asserts opinions in an area where he does not qualify as an expert.

Second, even if he were a statistics expert, Eden successfully undercuts the reliability of Mr. Sturges’s extrapolations. Mr. Sturges has not presented any evidence that his methodology accords with reliable scientific principles, or with the field of statistics. More to this point, Eden has submitted evidence that it does not. Douglas Wolfe, professor and current chair of the statistics department at Ohio State University, submitted a rebuttal expert report and pointed out several flaws in Mr. Sturges’s extrapolation. Doc. 135-8. For one, Mr. Wolfe pointed out that PHPK’s counsel supplied at least part of the sample of drawings Mr. Sturges reviewed to reach his conclusion. *Id.* at 2–3; *see also* doc. 130-3 at 187. According to Mr. Wolfe, this compromises the random selection of the sample, “which is critical if one is to make legitimate statistical statements about the full collection of 851 drawings.” Doc. 135-8 at 3. Mr. Wolfe also points out that Mr. Sturges prefaces several of his conclusions about the copied drawings

with “essentially identical, with the exception of.” *Id.* at 4; *see also* doc. 117-6 ¶¶ 46–66. According to Mr. Wolfe, this means Mr. Sturges has not used a “single standard” to determine whether the drawings have been copied, and instead used a “moving target”—and that this lack of a “common criterion” “prohibits us from making any valid statistical conjectures about the full population of 851 drawings.” Doc. 135-8 at 4–5.

Part of the Court’s role under Rule 702 centers on “whether the expert is justified in extrapolating from an accepted premise to an unfounded conclusion.” Fed. R. Evid. 702 advisory committee’s note (2000). Here, Mr. Sturges is not so justified. True enough, “[t]rained experts commonly extrapolate from existing data.” *Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997). But Mr. Sturges’s extrapolation is connected to the existing data only by his own *ipse dixit*, meaning that the Court is not required to admit it. *See id.* The Court “conclude[s] that there is simply too great an analytical gap between the data and the opinion proffered.” *Id.* Accordingly, Mr. Sturges may not give his opinion that all 851 of Eden’s new shop drawings were copied. Instead, he may only do so for the drawings that he examined.

IV. CONCLUSION

Based on the foregoing, the Court **DENIES** Eden’s motion as to Mr. Kreinbrink, doc. 133, and **GRANTS in part** and **DENIES in part** their motion as to Mr. Sturges in accordance with the parameters set forth above, doc. 135.

IT IS SO ORDERED.

9-24-2013

DATED



EDMUND A. SARGUS, JR.
UNITED STATES DISTRICT JUDGE